

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Timothy J. Brennan	
Application No.: 10/640,986	
Filed: 08/14/2003	Group Art Unit: 1714
Title: METHOD AND FUEL ADDITIVE INCLUDING IRON NAPHTHENATE	Examiner: Cephia D. Toomer
Attorney Docket No.: EP-7606	

Commissioner of Patent  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**Supplemental Declaration Of Timothy J. Brennan**

I, Timothy J. Brennan, declare as follows:

1. I submit this Declaration to supplement my earlier declaration that I executed on November 16, 2006 in connection with the present application.

2. I have received and studied the Patent Office Action in connection with this case that was mailed on February 8, 2007. I have studied the rejections articulated in the Office Action as well as the comments regarding my earlier declaration.

3. At the outset, the Office Action indicates that the present claims provide no guidance as to how the claimed physical properties were obtained. The claimed physical properties with respect to claim 1, for instance, are

directed to flash point, cloud point and viscosity of the combustion additive mixture. Each of these physical properties was measured with respect to the combustion additive mixture that includes iron naphthenate and a solvent. Each of these physical properties in claim 1 and all of the claims were obtained using conventional and well known ASTM measurement standards known to any person of skill in the fuel additive industry.

4. The Examiner states that, based on the information set forth in www.oilchem.com, that SHELLSOL AB and SOLVESSO 150 are art recognized equivalents. Respectfully, I disagree with the cited reference that the solvents are equivalent in the context of identical. Instead, the respective solvents identified on that website are similar in some functional manner, but they are not identical. Every person of skill in the art of fuel additives will recognize that the comparable solvents have some performance similarities, but they are nevertheless not identical. As a result, the similarities with respect to some functionality does not mean that comparable solvents are identical with respect to all performance attributes. No person of skill in the art of fuel additives would believe or expect that the so called "solvent equivalents" (www.oilchem.com) are identical and perform in a functionally identical manner in all ways.

5. I have read the translation of the FR '607 patent that was provided by the Patent Office. In the Patent Office Action rejection, it is stated that it would be reasonable to expect that the composition of the FR '607 patent would meet the claimed limitations with respect to cloud point and viscosity. Respectfully, I believe that it is not reasonable to assume and that a person of skill in the art would assume that the '607 reference would meet the cloud point and viscosity limitations. First, with respect to viscosity, it is not reasonable to expect that any composition of FR '607 would meet the viscosity limitation. As explicitly set forth in my earlier declaration, multiple different hydrocarbon solvents were tested at the time of the development of the present fuel additive invention in order to locate and identify an additive that would meet the viscosity requirement of less than 1.70 mm<sup>2</sup>/S at 40° C. Every one of the solvents identified in that table is a hydrocarbon solvent. Only one of the solvents, SHELLSOL AB, met the claim limitation with respect to viscosity. Therefore, it is not reasonable to expect that any combination of a hydrocarbon solvent with iron naphthenate would meet the viscosity limitations of the present invention. Further, with respect to the cloud point limitation (cloud point less than -40° C) this physical attribute is likewise not reasonably predictable. Specifically, as noted in my earlier declaration, the ExxonMobil chemical additive Aromatic 150 froze at -5° C. Therefore, a mixture of this particular solvent plus iron naphthenate would likewise freeze before reaching the cloud point of -40° C. Therefore, this generally similar solvent displays a different performance with respect to cloud point than the claimed invention.

There is no way to reasonably expect that any composition of FR '607 would meet the claim limitation with respect to cloud point.

6. The Office Action states that the FR '607 fails to teach that the solvent therein is aromatic. The Office Action says there is no unobviousness in this difference, because the teaching of hydrocarbon solvents suggests that the solvent may be aromatic. There is no question that hydrocarbon solvents as a generic definition include aromatic solvents. Specifically, hydrocarbon solvents may be generally classified as aromatic solvents or aliphatic solvents. However, a person of ordinary skill in the art typically considers aromatic and aliphatic solvents separately. The simple reference to a hydrocarbon solvent does not reasonably necessarily provide a teaching that the solvent that could be used would be aromatic.

7. I have read the WO 8700193 reference cited by the Examiner in the rejection. In the rejection, the Office Action states that it would be reasonable to expect that the composition of the WO '193 reference would meet the claimed cloud point and viscosity limitations. As noted earlier herein, the performance attributes of cloud point and viscosity are not necessarily predictable. One of skill in the art cannot simply take the teaching of the WO '193 reference and have any reasonable expectation that the cloud point and viscosity would be within the claimed range. Specifically, the WO '193 reference identifies "anthracene oil" as a polyaromatic solvent. Without more

specific identification of the particular anthracene oil, it is not possible to speculate about its cloud point or viscosity.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 5/8/07

Timothy J. Brennan  
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